

Yellow Springs, 4.5; Jacksonborough, 3.5; Upper Sandusky, 2.8; New Bremen, 2.1; Toledo, 2.

Pennsylvania.—Drifton, 27.5; Troy, 27; Mahanoy Plane, 24; Grampian Hills, 23; Wellsborough, 22.2; Wilkesbarre, 18.2; Dyberry, Catawissa, and Blooming Grove, 18; Erie, 15.5; South Bethlehem and Wysox, 10; Quakertown a, 5; Quakertown b, 4; Easton, 3.5; Pittsburg, 2.4.

Utah.—Salt Lake City, 10.4; Ogden, 4; Frisco, 2.5.

Vermont.—Post Mills, 20; Chelsea, 19.8; Strafford, 18; Woodstock, 17.2; Marlborough, 17; Burlington, 16; Jacksonville, 13; Brattleborough, 10.2; Windsor and Charlotte, 9; Townshend, 7; Vernon, 5; Newport, 3.9; Dorset, 2.2; Lunenburg, 2.

West Virginia.—Helvetia, 15.

Wyoming.—Cheyenne, 4.5.

Wisconsin.—Wausau, 2.5.

DEPTH OF UNMELTED SNOW ON GROUND AT END OF MONTH.

[Expressed in inches and tenths.]

Colorado.—Pike's Peak, trace.

Dakota.—Fort Totten, 2.

Maine.—Portland, 4.

Massachusetts.—Mendon, 0.8; Somerset, trace.

Michigan.—Port Huron, 1.2; Marquette, 0.2.

Minnesota.—Saint Vincent, 3; Moorhead, 0.3.

New Hampshire.—Mount Washington, 3; Nashua, 1.

New Jersey.—Dover, trace.

New York.—Mountainville, 7.8; Factoryville and Ithaca, 6; Syracuse, 3; Albany, Rochester, Palermo, and Auburn, 2; Menand Station, 1.5; Oswego and Cooperstown, trace.

Ohio.—Hiram, 2; Garrettsville, 1; Yellow Springs, trace.

Pennsylvania.—Wellsborough, 14.1; Drifton, 14; Blooming Grove, 11; Troy, 9; Dyberry, 8; Grampian Hills, 7; Mahanoy Plane and Catawissa, 6; Wysox, 5; Wilkesbarre, 4.5; Quakertown, 1.

Vermont.—Post Mills, 16; Woodstock, 13; Strafford, 10; Charlotte and Burlington, 6; Brattleborough, 3; Newport, 2; Dorset, trace.

West Virginia.—Helvetia, 3.

Wisconsin.—Wausau, 2.5.

HAIL.

Augusta, Georgia: hail fell on the 6th, three quarters of an inch in diameter, breaking a number of windows.

Cairo, Illinois: hail fell on the 1st, the size of peas, and at two miles east of this station the hail-stones were the size of grapes.

Astoria, Oregon: hail, of considerable size, fell on the 4th.

Tatoosh Island, Washington Territory, 8th: heavy thunder and lightning, accompanied by hail, which fell to the depth of one-half an inch, the ground being completely covered, and from a distance looked as if covered with snow; the hail-stones were one-half inch in diameter.

Hail storms, of which no particulars were reported, occurred in the various states and territories, as follows:

Alabama.—Birmingham, 1st.

Arkansas.—Little Rock, 18th.

California.—Fort Bidwell, 2d; College City, 10th.

Colorado.—Montrose, 11th.

Connecticut.—North Colebrook, 1st, 21st; Voluntown, 2d; New Haven, 24th.

Georgia.—Augusta, 6th; Savannah, 19th.

Illinois.—Anna, 15th.

Louisiana.—Liberty Hill, 6th; Grand Coteau, 9th.

Maine.—Buckfield, 3d, 18th, 20th.

Michigan.—Saginaw, 2d; Grand Haven, 2d, 3d; Pentwater, 2d, 13th.

Nevada.—Fort McDermitt, 2d.

New Jersey.—Dover, 3d, 22d, 26th; Somerville, 3d, 24th, 29th; Sandy Hook, 29th.

New York.—Setauket, 3d, 26th.

North Carolina.—New River Inlet, 19th.

Oregon.—Astoria, 2d; Albany, 4th; Bandon, 22d.

South Carolina.—Spartanburg, 6th.

Tennessee.—Milan, 6th.

Washington Territory.—Tatoosh Island, 2d, 5th, 10th; Pysht, 5th, 26th.

Wisconsin.—Embarras, 18th.

SLEET.

Arizona.—Prescott, 3d.

Colorado.—Pike's Peak, 20th, 21st.

Connecticut.—Bethel, 3d.

Dakota.—Bismarck, 3d, 23d; Fort Sully, 5th; Huron, 6th, 7th.

Illinois.—Bloomington, 20th, 22d.

Indiana.—Indianapolis, 21st; Greencastle, 22d.

Indian Territory.—Fort Supply, 23d.

Iowa.—Davenport, 8th.

Maine.—Portland, 3d; Eastport, 10th, 11th.

Massachusetts.—Boston, 22d; New Bedford, 26th.

Michigan.—Grand Haven, 1st, 2d, 3d, 15th, 21st; Escanaba, 1st, 4th, 12th, 20th, 28th.

Minnesota.—Saint Vincent, 27th, 28th.

Nebraska.—North Platte, 24th.

Nevada.—Winnemucca, 22d.

New Hampshire.—Mount Washington, 2d.

New Jersey.—Beverly, 23d, 25th, 29th; Princeton, 29th.

New York.—Oswego, 3d, 15th, 16th, 25th; Auburn, 21st; New York City, 29th.

Ohio.—Cleveland, 2d, 3d, 23d, 25th, 26th; Columbus and Cincinnati, 22d.

Pennsylvania.—Chambersburg, 1st, 3d; Erie, 2d, 3d, 13th, 21st, 22d; Philadelphia, 23d, 24th, 29th.

TEMPERATURE OF WATER.

The following table shows the highest and lowest temperatures of water observed at the several stations; the monthly ranges of water temperature; the average depth at which the observations were made; and the mean temperature of the air:

Temperature of water for November, 1885.

Station.	Temperature at bottom.		Range.	Average depth, feet and tenths.	Mean temperature of the air at station.
	Max.	Min.			
Atlantic City, New Jersey	57.7	45.4	12.3	11.3	50.7
Alpena, Michigan	49.5	32.4	17.1	12.7	39.2
Augusta, Georgia	60.0	47.0	13.0	10.2	63.8
Baltimore, Maryland	57.3	46.3	11.0	9.8	50.5
Block Island, Rhode Island	55.0	44.9	10.7	8.4	49.2
Boston, Massachusetts	49.3	39.2	10.1	20.9	47.3
Buffalo, New York	45.0	36.0	9.0	10.6	42.3
Canby, Fort, Washington Territory	55.8	49.3	6.5	16.5	50.6
Cedar Keys, Florida	72.9	59.9	16.0	7.9	66.0
Charleston, South Carolina	64.6	53.8	10.8	42.1	64.6
Chicago, Illinois	48.5	37.8	10.7	8.6	44.9
Chincoteague, Virginia	62.8	42.7	20.1	3.6	52.1
Cleveland, Ohio	52.8	38.5	14.3	14.0	43.3
Detroit, Michigan	46.7	39.5	7.2	25.2	44.1
Duluth, Minnesota	44.7	39.5	5.2	10.2	35.1
Eastport, Maine	49.1	44.8	4.3	16.8	42.1
Escanaba, Michigan	47.1	36.2	10.9	17.9	37.4
Galveston, Texas	76.0	58.7	17.3	12.7	66.0
Grand Haven, Michigan	45.9	35.9	10.0	19.0	40.7
Indianola, Texas	53.5	60.5	23.0	8.2	70.9
Jacksonville, Florida	68.4	58.4	10.0	18.0	68.9
Key West, Florida	80.0	70.0	10.0	17.4	74.6
Mackinaw City, Michigan	45.9	38.6	7.3	10.0	38.7
Macon, Fort, North Carolina	68.5	54.6	13.9	9.9	60.0
Marquette, Michigan	42.9	37.3	5.6	12.9	35.7
Milwaukee, Wisconsin	49.7	40.6	9.1	8.0	39.6
Mobile, Alabama	64.6	53.4	11.2	15.8	63.3
New Haven, Connecticut	54.0	40.6	13.4	16.2	48.2
New London, Connecticut	55.4	44.2	11.2	18.2	49.3
New York City	58.4	45.9	12.5	16.9	57.2
Pensacola, Florida	67.5	54.0	13.5	17.5	63.5
Portland, Maine	48.4	40.0	8.4	17.2	42.8
Portland, Oregon	53.9	44.8	9.1	51.3	49.4
Sandusky, Ohio	49.0	36.0	13.0	11.4	44.9
Sandy Hook, New Jersey	59.7	45.0	14.7	2.2	50.5
San Francisco, California	59.2	55.9	3.3	38.8	58.2
Savannah, Georgia	61.0	50.2	10.8	10.6	65.2
Smithville, North Carolina	67.1	55.0	12.1	11.0	60.4
Toledo, Ohio	49.2	35.9	13.3	13.2	45.0
Wilmington, North Carolina					

• Record for fourteen days.

WINDS.

The most frequent directions of the wind during November,